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AFSAC: 25/68

27 April 1950

MEMORANDUM FOR THE MEMBERS OF AFSAC:

Subject:

Division of Responsibility between AFSA and the Services.

- 1. The subject paper will be distributed to the members at the Thirteenth Meeting of AFSAC on Friday, 28 April 1950.
- 2. When this cover memorandum has been attached to the subject paper, it will then, for reference purposes, become AFSAC: 25/68.

ਰੇ. W. PEARSON H. D. JONES

Secretariat, AFSAC.

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Declassified and approved for release by NSA on 07-26-2012 pursuant to E.O. 13526

(20 april)

REPORT BY THE ARMED FORCES SECURITY AGENCY

to the

ARMED FORCES SECURITY AGENCY COUNCIL

on

DIVISION OF RESPONSIBILITY BETWEEN AFSA AND THE SERVICES

THE PROBLEM

l. Differences have arisenamong various authorities responsible for the implentation of JCS 2010 (Appendix) and JCS 2010/6 (Enclosure B) with regard to the wording and intent of certain provisions of these two directives bearing upon the division of responsibility between the Armed Forces Security Agency (AFSA) and the Services in the communications intelligence (COMINT) field. An early authoritive decision on the questions involved is essential in order that the development of AFSA and the Service Communications Intelligence Organizations may proceed smoothly in conformity with J.C.S. intent and in the best interests of National Defense.

FACTS BEARING ON THE PROBLEM

2. See Enclosure "A".

DISCUSSION

3. See Enclosure "3".

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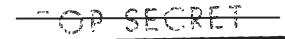
COUCLUSIONS

- 4. It is concluded that:
- a. In order to avoid unnecessary duplication of effort in the COMINT field within the Department of Defense, and to insure an orderly development of AFSA and the Service COMINT organizations in the best interest of National Defense, the principles brought out in the foregoing discussion should be approved and applied insofar as possible within the Department of Defense. Specifically, these principles are set forth in the following paragraphs:
 - (1) A Processing
 Paras. 30, 31 and 32.
 - (2) B Intercept Faras. 34, 36 (1st sentence), 38, 39 and 41
 - (3) C Training
 Paras. 43, 44, 45, 46 and 47
 - (4) D Personnel Support

 Para 51

RECOLENDATIONS

- 5. It is recommended that:
- a. A SAC, acting for the JCS, approve the above conclusions for implementation by AFSA and the Services as appropriate.



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b. If AFSAC considers that these conclusions are not in conformity with the JCS 2010 series, this study be forwarded to the JCS for appropriate action.

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PACTS

- 1. For purposes of background, the following pertinent directives are cited (italias supplies);
 - a. JCS 2010 (Appendix) created the Armed Forces

 Security Agency (AFSA) "in order to provide for the

 placing under one authority the conduct of com
 munication intelligence and communication security

 activities (hereinafter referred to as crypto
 logic activities) within the National Military

 Establishment, except those which are to be

 conducted individually by the Departments of the

 Army, Navy, and Air Force."
 - b. JCS 2010/6 (Enclosure A) requires the Armed Forces
 Security Agency Council (AFSAC), acting under
 authority of the JCS, to:
 - (1) Determine policies, operating plans, and doctrines for the AFSA in its production of communications intelligence in order to insure the provisions of:
 - (a) Authentic information for planners and policy makers within the National Lilitary Establishment and other Governmental Agencies having membership on the United States Communication Intelligence Board;

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to apprise them of the realities of the international situation, war-making capabilities, vulnerabilities and intentions of foreign countries, and to eliminate the element of surprise from an act of aggression by another country.

- (b) The unique information essential to the several services for the successful prosecution of war and vital to a shortening of the period of hostilities.
- c. In commention with subparagraph b. (1)(b)

 -above JCS 2010/6 (para. 3b. of Enclosure B)

 provides that:

"All AFSA Communications Intelligence (COMINT) activities (1) directed primarily toward the production of unique information essential to one of the Services for its successful prosecution of war or toward the provisions of technical support to one of the Services as required by subparagraph 3g. (14) of JCS 2010; or (11) having as their principal product information in which one Service has a primary interest, will, insofar as practicable, be carried out under the immediate direction of AFSA personnel of the Service concerned."

This provision was approved by AFSAC at its second meeting on 19 July 1949. The minutes of this meeting contain the following pertinent remarks:

"ADMIRAL STONE suggested that the members consider the problem of providing unique information and asked for examples of problems which could be considered of particular Service interest.

"CAPTAIN WENGER replied that anti-submarine warfare would be one such problem, pointing out that the Navy has been assigned primary responsibility for that program. He continued that it would be logical for air-traffic-analysis problems, as another example, to be under the direction of an Air Force officer. He explained that in the CSA organization Naval traffic analysis is always under the direction of Naval personnel, pointing out that rotation of duty between the processing center and the field stations makes for well-trained T/A personnel."

d. JCS 2010 (Appendix) provides that the Army, Navy, and Air Force will "continue to be

logic activities as are required by intra-service or joint needs (e.g., communications intelligence processing, intercept, research and development, training, etc.)

and are determined by the Joint Chiefs of Staff not to be the sole responsibility of AFSA."

- responsibilities will be considered as not the sole responsibility of AFSA. "Generally these responsibilities are those required by the Services to maintain, during peacetime, their readiness to meet their wartime operational requirements, and to operate, during wartime, those facilities necessary for direct support of combat operations. Specifically these responsibilities are:
 - (1) Intercept as indicated in JCS 2010 (which provides that mobile intercept facilities required by the Army, Navy, and Air Force respectively, will be manned, administered, and operationally controlled by the individual Service.)

Processing - as needed for intercept control and for combat intelligence. Exploitations by each Service applies only to material of operational interest to that Service. Such exploitation outside AFSA will not entail undesirable duplication."

- f. The directive further specifies that "each Service
 will maintain the facilities and personnel required
 for the discharge of its basic responsibilities
 in these activities."
- g. In his mamorandum for the JCS dated 20 May 1949, subject: "Or anization of Cryptologic Activities within the National Military Establishment," the Secretary of Defense stated "efficiency and economy are to be stressed."
- 2. a. Under date of 14 January 1950, the Commanding

 USAF Security Services,

 Officer submitted a staff study concerning an

 "Expanded Program of the USAF Security Service".

 Three objectives were stated as the purpose, or

 "problem", of the study:
 - Agency, to provide the Chief of Staff, USAF, the Commanding Generals of the Continental Air Command, Strategic Air Command, Air Defense Command, and USAF commands overseas with maximum advanced warning of an impending air strike against the United States by the Soviet

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Long Range Air Force.

- communications intelligence facilities of the USAF Security Service, in concert with and support of other communications intelligence organizations, so that it will function as an advanced warning medium as well as the agency for the collection, analysis, and dissemination of air communications intelligence pertaining to the Soviet Air rorce.
- (3) To achieve peacetime readiness to meet wartime operational requirements.
- "By increasing the USAF Security Service troop program authorization in personnel by 144 officers, 1775 airmen and 86 civilians, a total of 2005 people, exclusive of personnel requirements for AFSA, as stated in the preceding paragraph, by acceleration of cryptographic clearances, and by granting additional funds in the amount of \$5,262,197 it will be possible to equip and man two hundred and ten (210) intercept positions as compared to the one hundred three (103) under present authorizations. This figure of 210 does not include those especially assigned from the 8th RSM and administered directly by Headquarters,

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USAFSS. The resultant increase in intercepted traffic, combined with the addition of processing personnel in the squadrans, would not only enhance the accomplishment of normal COMINT duties inherent in the basic mission, but would also materially increase the capability of the USAF Security Service to provide at least a ten (10) hour warning of an impending air strike against the United States.

- "It is therefore recommended that Headquarters,
 United States Air Force, approve the expanded
 program of the United States Air Force Security
 Service, as outlined in this study, and implement
 this program by providing the highest priorities
 for cryptographic clearances, additional personnel,
 equipment and funds as required over those
 presently programmed."
- "In order that the most effective solution of the Air Warning problem may be attained, it will be desirable to place a portion of the additional facilities and personnel under the control of the Director, AFSA. The scope of this control will be a matter of future study between AFSS and AFSA."

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- 3. JCS 2010/6 (Enclosure B) states that "the Director,
 A.S.A., will be kept fully informed o" the cryptologic activities
 of the individual Services. He will report to AFCIAC for
 appropriate action whenever, in his opinion, such activities
 represent an unnecessary duplication of AFSA operations, or
 are otherwise at variance with either the spirit or the
 letter of JCS 2010 or this directive."
- 4. In compliance with the foregoing, the Commanding Officer, United States Air Force Security Service (AFSS) submitted the above-mentioned Staff Study to the Director, AFSA, for consideration. The latter on 20 January 1950 commented as follows:
 - DIRAFSA has carefully studied the expanded AFSS

 COMINT program and considers that it represents
 a reasonable approach on the part of the AFSS
 to attain and, 'maintain, during peacetime, their
 readiness to meet their wartime operational
 requirements, and to operate, during wartime,
 those facilities necessary for direct support of
 combat operations,' as provided in pare 5a, Enclosure
 "B", JCS 2010/6. The intercept and processing
 personnel of the expanded program can be employed
 to advantage without undesirable duplication.

 "2, Specifically, it can be stated that the expanded
 - "2. Specifically, it can be stated that the expanded program provides for the collection of virtually all Russian Air Force radio communications cura rently susceptible of interception and will

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uarning of an imponding air attack against the United States. As stated in par. 10 of the basic study, the most effective peacetime employment of a certain portion of the proposed facilities and personnel on the solution of this problem would be under the operational control of DIRAFSA.

Lioreover, such employment will not lessen the effectiveness of those facilities in meeting the responsibilities referred to in paragraph 1.

ordinate and review the Service-operated communications intelligence facilities not allocated to the AFSA. The proposed
expanded program was submitted to AFSA. for consideration on
15 February 1950. This joint body, acting for the JCS, approved the proposal in principle. In connection with this
approval, Director, AFSA, commented as follows:

"This qualified approval on my part was made in recognition of the over-all need for increased effort on the Russian air problem. It must not be construed to prejudice any settlement of the problem of the proper control or employment of field and Service headquarters activities, nor the provision by any Service of its proper share of personnel and other support required by AFSA. The need for procuring additional facilities is not questioned, but how they

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are to be used and controlled both in peace and in war must be determined so as to avoid duplication and to insure economy and efficiency.

The Director, 1551, hopes to resolve these matters by conferring with Service representatives as soon as possible. The first such conference is scheduled with the Army for tomorrow, Thursday, 16 February 1950. If resolution by this means should not prove feasible, however, a presentation will be made to AFSAC at an early date, with a view to settlement in AFSAC.

- tives in an effort to reach a mutually satisfactory agreement as to the extent of AFSA's control of AFSS activities. No agreement has been reached. Meanwhile, the AFSS expanded program has been approved by the Vice Chief of Air Staff and the Office of the Scoretary of Defense for implementation. Accordingly, the matter is referred to AFSAC for resolution as required by JCS directive.
- 7. Collateral problems have arisen in regard to the control of mobile intercept activities and the provision of military personnel by the Services to meet AFSA's requirements. These also require resolution.

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(20 April 1950)

DISCUSSION

A - Processing

- l. Regardless of what other interpretations may be placed upon the various provisions of the JCS 2010 and JCS 2010/6 directives, it appears clear from the facts cited in the facts that:
 - a. Both AFSA and AFSS have been assigned by competent authority responsibility for supplying to Air Force Commanders:
 - (1) Advance warning of impending attack;
 - (2) Information in which the Air Force has a primary interest;
 - (3) Unique information essential for the successful prosecution of war and vital to a shortening of hostilities.
 - b. AFSA has been assigned a very broad mission and AFSS a limited one.
 - c. AFSS Communications Intelligence activities must not entail undesirable duplication of AFSA's effort.
 - responsibilities of AFSA and AFSS has been drawn.

 in order to avoid such duplication and insure to maximum over-acc iffections.
- 2. While the situation apparently presents a problem as between AFSA and the Air Force, it is obvious that the same

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problem must inevitably arise with respect to the other Services. The AFSA-Air Force aspect has merely been brought into focus by presentation of the AFSS expanded program.

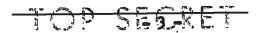
- 3. Reduced to its simplest terms, the general problem is to determine whether or not there are any irreconcilable factors in the current assignment of responsibilities, and, if not, to arrive at some practicable division of effort which will:
 - a. Promote maximum overall effectiveness in the production of COHINT for purposes of National Defense:
 - b. Enable the Services to discharge fully their military operational responsibilities; and
 - c. Conform to existing basic directives governing communications intelligence activities within the National Hilitary Establishment.
- 4. Added to the foregoing, certain cellsteral problems have arisen which point to the necessity of establishing a more equitable method of assessing the Services for the support of AFSA in the accomplishment of its mission for them.
- 5. For the purpose of this discussion, a processing unit is defined as one which makes intercepted messages readable or understandable. It may vary in size from a large main center such as AFSA to a small organic unit in a mobile squadron. An evaluation unit is one which evaluates, collates,

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and interprets the processed intercepts for command purposes. The latter type of unit may be an intelligence center or a small so-called "interpretative unit," such as was employed during World War II at the headquarters of certain commanders.

- 6. In the accomplishment of the COMINT missions of the Armed Services, both joint and individual, several basic objectives must be considered:
 - a. Adequate production of intelligence to meet peacetime planning and preparedness requirements.
 - b. Adequate training and other necessary preparations for the conduct of war.
 - c. Adequate production of intelligence to meet wartime operational requirements, and
- d. Maximum efficiency and economy.

 These objectives are recognized and expressed in JCS 2010 and JCS 2010/6.
- 7. Regardless of these and all other considerations, maximum effectiveness is imperative in war. Above all, this means maximum coverage with the facilities and personnel available and optimum response to the needs of operational commanders,
- 8. The experience of World War II has clearly shown that whatever the requirements may be, there are three limiting factors which definitely govern what can be done to meet them, or at least dictate how and where they must be met. These



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factors are:

- a. Time available for processing.
- b. Hapid communications available for passing intercepted messages to processing centers, and
- c. Facilities and personnel necessary to cope with processing difficulties.
- arrangement would be to have all messages processed immediately at the point of intercept. A vast amount of communications could thereby be eliminated and delays would be reduced to the absolute minimum. Obviously, however, there are stringent practical limitations on the processing facilities and personnel that can be placed at each intercept point. To provide for anything more than the lowest level processing at most intercept stations would either be prohibitive in cost or result in such wide-spread dispersal of talent and facilities as to defeat completely the aims of efficiency and economy. Actually, as we know, the creation of AFSA is based upon the premise that efficiency and economy can best be achieved by the exact opposite of such an arrangement, i.e., by a concentration of processing effort to the maximum degree.
- 10. Between the demands for speed on the one hand, and efficiency and economy on the other, the limiting factors compel us to make compromises which, generally speaking, result in provisions for three different levels of processing:

- a. Point-of-intercept processing.
- b. Theater center processing, and
- c. Z. I. center processing.
- Il. There are certain tactical communications which are of such urgency from an intelligence standpoint that, unless they are immediately processed, i.e., made intelligible, at or near the point of interception, and are passed at once by the most direct channel to the operational commander who can act upon them, their operational value is lost. In short, either they must be processed "on the spot," or they cannot be processed in time to be tactically useful.
- 12. At the other extreme are intercepted messages which require such complex processing that they must be passed to a major center in the ZI which is capable of dealing with material of the highest processing difficulty. In other words, either they must be dealt with at the main ZI center, or they cannot be dealt with at all except for T/A purposes. In this category there may also be included a large volume of messages (mostly strategic or non-operational in character) wherein the time factor is such that they may be passed to the main ZI center for processing in order to leave field or theater activities free for handling more urgent material.
- 13. Between these two extremes lies a large category of messages which require intermediate level processing

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beyond the capacity of point-of-intercept units or on which some delay can be accepted to permit more advantageous processing at a center. In either case it is necessary or desirable to pass them on to a center, which may be the main Z.I. center or a theater center depending upon the communication situation.

14. For the most part, as demonstrated in World War II, the three different processing requirements can be adequately provided for and the processing problems can be sufficiently well divided along these lines for all practical purposes. Tactical information of the type producible "on the spot" in the field is usually local in nature and of primary tactical value to local or area commanders. Thus it is reasonable to have at least a measure of local control by these commanders over such problems.

respects resemble these local problems, but which have peculiar requirements because of the scope and mobility of the operations with which they are concerned and their important status in the overall scheme of defense. These problems are those of ADC, SAC, and ASW. They are tactical in nature like the local theater problems, but, unlike them, are worldwide in scope. Moreover, command is normally exercised at or near the highest military level from the Z.I., and transcends all area and



theater boundaries. There is a common speed requirement in these problems because all involve air operations. There is also a probable interrelationship among them.

16. Because of the range, scope, and great importance of the SAC, ADC, and ASW, the activity providing immediate COMINT support must be equipped and ready to deal on a tactical basis with problems of any level of difficulty. This was amply demonstrated by the ASW and long range bombing problems in World War II, which involve the entire range of COMINT operations from D/F activities on a flash basis, through T/A and codes and grids, to the most sophisticated cipher machine problems confronting us ~ all of which had to be handled with the highest speed and precision.

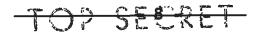
certain COMINT organizational principles which, whatever else may be said about them, were eminently successful. We have fully consolidated emin non-combat problems, and, in so doing, we have departed from organizational principles which permitted a positive division of the combat problems along. Service lines and insured to each Service complete integration and positive control of its combat problems at all levels.

Instead of having this practical vertical split, we are now confronted with the necessity of making a horizontal split as between AFSA and the Services on some as yet undefined basis of strategic vs. tactical, high-level vs. low-level, slow vs. fast, or

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some other uncertain line of division.

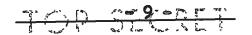
- 18. We have reorganized along these lines in the name of efficiency and economy. In seeking these two objectives it is imperative that we do not sacrifice effectiveness. In order to avoid this, we must make certain to profit from the experience of World War II and recognize and preserve the operating principles upon which our conspicuous success was based.
- 19. With this in mind, it is important to examine briefly World War II CO. The organization and operations. For this purpose, the Naval organization has been selected because:
 - a. It was devoted almost exclusively to the production of combat and operational intelligence.
 - b. It was engaged in the direct support of both tactical and strategic operations of virtually all types.
 - c. It achieved outstanding success which drew the highest praise from all of the leading combat commanders, both U.S. and Allied, whom it served.
 - d. As further evidence of its merit, ASA, after the full experience of the war, reorganized along the same lines.
- 20. The strength of the Naval organization when fully developed lay in its completely vertical nature or plan.



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Everything operationally necessary to do the job was welded into a unified whole under a central controlling authority. The organization was thus equipped to tackle the entire Naval operational problem directly and with the greatest dispatch at any and all levels as the need arose. The ability to shift facilities, personnel and tasks at will gave to it the means of achieving the maximum coverage together with complete flexibility to meet the constantly changing situation.

- 21. Full tactical support was given to ASW operations by the Main Z.I. center in Washington (CSAW). Full control of intercept and D/F coverage was exercised here, and all of the necessary processing was likewise accomplished. This by no means precluded direct working level contacts by the ASW processing unit. This activity was set up as a separate entity within CSAW. It had direct communications with the intercept and D/F stations under its centrol, with its Canadian and British counterparts, and with the U.S., British, and Canadian operational commands. It received the requirements direct from the ASW command headquarters, consulted directly with them, and gave them direct response.
- 22. Of interest in this connection was the method of handling flash D/F bearings. The plotting of these bearings is actually the function of an evaluation unit because it involves collection of the bearings, evaluation of the



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bearings, collating or plotting them together, and interpreting the result. D/F bearings were plotted at CSAW for D/F control purposes, to meet cryptanalytical needs, and to serve the ASW command. They were also supplied directly and simultaneously by the D/F stations to other commands and plotted by their evaluation units. The needs of combat command, intercept control, and cryptanalytic processing were thus all fully met without any conflict.

23. The great virtue of this arrangement was that, while it operated in effect under control of, or directly responsive to, the combat commanders, it nevertheless remained a part of CSAW and thereby enjoyed the full and immediate support of the entire center. Moreover, this co-location afforded an ease of coordination, an internal flexibility, and a completeness of technical and intelligence background for control purposes, that could not otherwise have been attained. One has only to examine the records of this activity to see its unquestionable merit.

24. As for the handling of long range bombing operations, NSA25X1 the tactical COLINT support of the 20th Bomber Command at Guam is a particularly good example because of its joint aspects. In this case, intercept activities and combat command were entirely outside and far removed from the Z.I. center. It became necessary to utilize an intercept control and processing unit in the area of operations to serve the

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commander. This was done, but it should be noted that it was a unit of the Naval COMINT organization augmented by Air Force personnel. In addition to its work in connection with bombing operations, the joint unit also provided primary COMINT support for air defense of the area.

- 25. Except for co-location, it bore, in effect, the same relation to CSAW as did the ASW unit and operated in much the same direct manner with respect to the combat commander. The great advantages of co-location could not be realized because of geographical reasons, but the general control of facilities, personnel, and effort exercised by the central authority in Washington insured their best possible employment, mutual support, and coordination in the general scheme of things. Necessary adjustments between actual back-up operations at, and technical support from, other centers could be promptly and directly made. Added to this, the joint working of Navy and Air Force personnel on mutual and related problems assured the best results.
- 26. We thus see two examples of distinctly successful application of the vertical principle in support of such combat operations as ASW, SAC and ADC, in both of which cases the processing units functioned as part of, or under the control of the main Z.I. center.
- 27. Now, as has been said, the virtue of the vertical plan was that it permitted a completely unified attack on an



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entire combat problem. We have now proceeded with the creation of AFSA on the premise that the Russian problem is no longer divisible along Service lines as were the German and Japanese. We are told that it is one problem. If this be true, it must be a single problem vertically as well as horizontally. Therefore, the vertical plan of attack which proved so successful in World War II must be applicable with equal validity to the entire Russian problem. Otherwise, we have herely substituted for a definable vertical division an indefinable horizontal one.

- 28. In departing from the successful organizational principles of World War II, in order to seek a more efficient method of accomploshing our work, it is imperative that we do not also lose sight of successful basic operating principles. Otherwise we are in serious danger of winding up with neither an AFSA nor Service organizations capable of providing "the unique information essential to the several Services for the prosecution of war and vital to a shortening of hostilities." The next war may be different, but at least we can start along proven lines and meanwhile endeavor to settle before war comes some of the jurisdictional controversies that hampered our operations in the beginning of World War II.
- 29. AFSA can accomplish its mission, but only if it is strong and properly supported. Unless the principle of a

strong AFSA, which is organized, equipped, and empowered to handle both joint and Service problems in war as well as in peace, is fully accepted, we shall inevitably have four organizations, all competing for support, instead of maximum consolidation of effort which is clearly the aim of JCS 2010.

30. Such being the case, it must be recognized and fully accepted that:

- a. Maximum consolidation of effort and the avoidance of unnecessary duplication of effort in the interest of economy and efficiency are the basic tenets of JCS 2610.
- anchored in Arsa because of Arsa's broad mission and because of technical complexities and interplationships with which only AFSA is competent to deal, and, therefore, regardless of what the Services themselves may undertake, they must rely later greatest upon AFSA for the satisfaction of their vital combat needs.
- c. The burden of avoiding unnecessary duplication must rest upon the Services, as stated in JCS 2010/6.
- d. As a reasonable basis for determining the existence of unnecessary duplication, such duplication should be said to exist when a Service undertakes COMINT tasks or activities which AFSA, acting within its governing JCS directives, can, or could with no greater additional effort than that applied by the

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Service, accomplish more effectively, or as offectively, with essentially the same prospects and/or not result to the intelligence consumers.